

The Army's New Protective Eyewear

By Mr. Larry T. Hasty

During the past few years, the U.S. Army has adopted several new types of commercial protective eyewear to help minimize the number of eye injuries during combat missions and training. Until recently, the choices were limited to the old sun, wind, and dust goggles (SWDG); the ballistic laser protective spectacles (BLPS); and the special protective eyewear, cylindrical system (SPECS). The new types of eyewear are commercial, off-the-shelf items that have passed the U.S. Army's testing criteria and are currently being issued to deploying Soldiers through the Army's rapid-fielding initiative. Units can order the authorized commercial eyewear using the national stock number. Funded military standard requisitioning and issue procedure (MILSTRIP) requisitions need to be submitted through normal supply channels to the Defense Supply Center, Philadelphia, General and Industrial.

The new eyewear is categorized as either spectacles or goggles, according to the test criteria each must pass to be authorized for use by Soldiers:

- **Spectacles** are required to stop a 5.8-grain fragment simulating projectile moving at a speed of 640 feet per second.
- **Goggles** are required to stop a 17-grain fragment simulating projectile moving at a speed of 550 feet per second (approximately twice the energy impact of spectacles).

Although some of the approved spectacles may meet the testing requirements of goggles, combat-vehicle crewmen should choose from the list of approved goggles in order to receive the appropriate level of fragmentation protection, as well as added sun, wind, and dust protection.

Although these new commercial items provide excellent ballistic protection, none of them protect the eyes from lasers. If an operation or a training mission requires laser eye protection, the SWDG, BLPS, or SPECS with laser lens must be worn. For Soldiers who require prescription lenses, the Uvex XC™ spectacle with prescription lens carrier (PLC), the eye safety system (ESS) Interchangeable Component Eyeshield (ICE) 2™ spectacle with PLC, and the Revision II Sawfly™ with PLC are authorized alternatives to the BLPS.

An updated authorized protective eyewear list, published by the Program Manager-Clothing and Individual Equipment (PM-CIE), provides information for ordering the new eyewear. The list can be found on the Program Executive Office Soldier Web site at <http://www.peosoldier.army.mil/index.php?section=product>. The list can be accessed by opening the "Commercial Eyewear Fact Sheet" link located on the right-hand side of the page, directly below the graphic of the new "Army Combat Uniform."

Following is a detailed description of the authorized commercial goggle kits. All of the goggles are one size fits all, and all the kits include two ballistic protective lenses, one clear and one tinted. These lenses are made with antiscratch and antifogging coatings and provide protection from ultraviolet rays. Each kit has an antireflective sleeve that reduces glint when the goggles are not in use.

- **ESS Land Ops™** goggles can be worn by Soldiers who wear prescription lenses and those who do not. These goggles fit over the standard Army-issued eyeglasses. The kit includes a rubber frame with a foam backing that wicks away moisture and increases comfort for long periods of use. Foam-covered holes allow ventilation and help eliminate fogging, while keeping out dust.



ESS Land Ops Goggles

- **ESS Profile NVG™** (night vision goggles) are strictly for Soldiers who do not require prescription lenses. These goggles fit closer to the face (because of their rubber backing) and are more compatible with night vision goggles. A thin fleece backing, which may improve comfort when wearing the goggles in very cold weather, is being evaluated at Fort Knox, Kentucky. Outtrigger clips on the strap allow optimal helmet compatibility without breaking the face seal. Like the ESS land operations goggles, foam-covered holes in the frame allow ventilation, while keeping out dust. The kit can be ordered in one of three frame colors—black, olive drab, or desert tan.



ESS Profile NVG

- **ESS Vehicle Ops™** goggles are used for vehicle operations involving excessive dust. The high-density, restricted-perimeter filtration provides protection against airborne debris while traveling at high speeds. These goggles fit over most eyeglasses, and the frame has a foam backing that wicks away moisture.



ESS Vehicle Ops Goggles

- **Arena Flakjak™** goggles are designed for Soldiers who do not wear eyeglasses. These goggles consist of a molded frame with a ventilation screen, which allows air to flow through to minimize lens fogging. The frame has a foam backing that fits to the face and wicks away moisture.



Arena Flakjak Goggles

Soldiers in combat and training run a high risk of losing their eyesight. Sixteen percent of the casualties of the coalition forces are attributed to eye injuries. Several reports from these Soldiers indicate that the Army's new protective eyewear has protected their eyes from shrapnel numerous times. Although flying shrapnel from an enemy weapon blast is the most dangerous threat to a Soldier's eyes, many other hazards—such as flying sand, dust and debris from helicopters, high winds or overpressure, flash fires, and lasers—threaten eye safety as well. The new types of commercial protective eyewear are the ideal solution for minimizing those hazards.

For additional information about any of the protective eyewear, contact Mr. Larry T. Hasty at DSN 464-3662, commercial (502) 624-3662, or e-mail <larry.hasty@knox.army.mil>; Mr. Myron Pross, PM-CIE, at DSN 444-2510, commercial (215) 737-2510, or e-mail <MyronPross@dla.mil>; or Mr. Frank Cole at DSN 645-9907, commercial (256) 955-9907, or e-mail <frank.cole@logsa.redstone.army.mil>.



Mr. Hasty is the Soldier Project Officer assigned to the Science and Technology Division of the Unit of Action Maneuver Battle Lab at the U.S. Army Armor Center, Fort Knox, Kentucky.

